

REMARKS/ARGUMENTS

Claims 1-10 were previously pending in the application. Claims 2-3 and 6 are canceled; claims 1, 4-5, and 7 are amended; and new claims 11-20 are added herein. Assuming the entry of this amendment, claims 1, 4-5, and 7-20 are now pending in the application. The Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and these remarks.

In paragraph 2, the Examiner rejected claim 1 under 35 U.S.C. § 112, second paragraph, as being indefinite for insufficient antecedent basis for the recitation of “determining steps.” In response, the Applicant amended claim 1 to correct this deficiency. The Applicant submits therefore that the rejection of claim 1 under § 112, second paragraph, has been overcome.

Claims 9 and 10 are allowed. In paragraph 4, the Examiner rejected claims 1, 2, and 5 under 35 U.S.C. § 102(e) as being anticipated by Wang ('250). In paragraph 5, the Examiner objected to claims 3, 4, and 6-8 as being dependent upon a rejected base claim, but indicated that those claims would be allowable if rewritten in independent form. For the following reasons, the Applicant submits that all pending claims are allowable over Wang ('250).

Claims 1, 4-5, and 7-8:

Claim 1 is amended to incorporate the recitations of original claims 2 and 3 (now canceled). As such amended claim 1 is equivalent to original claim 3 rewritten in independent form. Since the Examiner stated that claim 3 would be allowable if rewritten in independent form, the Applicant submits that claim 1 is allowable. Since claim 4 depends from claim 1, it is further submitted that claim 4 is also allowable.

Claim 5 is amended to incorporate the recitations of original claim 6 (now canceled), wherein an inadvertent error (in line 3 of claim 6) has been corrected. As such amended claim 5 corresponds to original claim 6 rewritten in independent form. Since the Examiner stated that claim 6 would be allowable if rewritten in independent form, the Applicant submits that claim 5 is allowable. Since claims 7 and 8 depend variously from claim 5, it is further submitted that those claims are also allowable.

Claims 11-20:

Claim 11 is directed to a method of processing signals in a network employing robbed bit signaling. The method includes: (a) receiving, at a receiver of the network, a signal corresponding to a training symbol; (b) mapping said training symbol to a first level or a second level, said first and second levels corresponding to variation in the received signal due to the robbed bit signaling; and (c) repeating steps (a) and (b) for one or more frames to determine a pattern employed in the robbed bit signaling.

Wang ('250) discloses a modem designed to learn the slicing levels employed at an interface to a digital transmission network to reduce detrimental noise effects (see, e.g., col. 2, lines 59-61). In the rejection of original claim 1, the Examiner referred to Wang's Fig. 6, which shows a flowchart describing the principles of operation for the modem shown in Wang's Fig. 4. The modem of Fig. 4 has an FF (feed forward) filter 250, an FB (feed backward) filter 265, and an adaptive slicer table 260. The flowchart of Fig. 6 shows that, at step 601, the mean squared error (MSE) between the input and output of slicer table 260 is measured. If the measured MSE is less than a predetermined first fraction $\delta 1$ of the distance between adjacent slicing levels, both FF filter 250 and FB filter 265 are frozen at step 612 while slicer

table 260 continues to be adaptively updated at steps 613 and 614. If the measured MSE is somewhat larger than $\delta 1$, i.e., $\delta 1 < \text{MSE} < \delta 2$, where $\delta 2$ is a predetermined second fraction of the distance between adjacent slicing levels, FB filter 265 is frozen at step 602, the channel impulse response $h(t)$ is ascertained at step 603, and FF filter 250 is fine tuned at step 604. Slicer table 260 continues to be adaptively updated at steps 605 and 606. If the measured MSE is larger than $\delta 2$, the channel impulse response $h(t)$ is ascertained at step 622 and both the FF and FB filters are fine tuned at step 623. Slicer table 260 is then adaptively updated at steps 624 and 625 (see, e.g., col. 6, line 45, through col. 7, line 3). It is therefore clear from the above description that fractions $\delta 1$ and $\delta 2$ correspond to the distance between adjacent slicing levels. In contrast, claim 11 recites "mapping said training symbol to a first level or a second level, said first and second levels corresponding to variation in the received signal due to the robbed bit signaling."

For all these reasons, the Applicant submits that claim 11 is allowable over Wang ('250). For similar reasons, the Applicant submits that claim 19 is allowable over Wang ('250). Since claims 12-18 and 20 depend variously from claims 11 and 19, it is further submitted that those claims are also allowable over Wang ('250). In addition, the Applicant hereby informs the Examiner that, at the time the present application was filed, the application and the Wang ('250) patent were commonly owned by the assignee of the present application.

In view of the above amendments and remarks, the Applicant believes that the now pending claims are in condition for allowance. Therefore, the Applicant believes that the entire application is now in condition for allowance, and early and favorable action is respectfully solicited.

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